

REMARKS

Applicants appreciate the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

Rejection under 35 USC § 112, second paragraph

Claim 11 stands rejected under 35 USC § 112, second paragraph as being indefinite. Applicants have amended claim 11 to replace the word "pedestal" for the word "platform." Support is found in paragraphs 0053-0054 of the specification and Figs. 15-18 of the drawings. No new matter has been added.

Rejection under 35 USC §§ 102 and 103

Claims 1-20 stand rejected under 35 USC § 102 as being anticipated by Chung et al. U.S. Patent No. 6,171,453. Claims 12 and 20 also stand rejected under 35 USC § 103 as being obvious from Chung et al. Applicants respectfully traverse these rejections.

Applicants have amended claims 1 and 14 to incorporate the subject matter of originally filed dependent claim 12, namely, that the sidewall shield lower end is above the pedestal, when the pedestal is in the lowered position, a distance sufficient to permit a wafer to be horizontally loaded onto the pedestal.

As amended, applicants' invention is a shielding system and method of shielding a physical vapor deposition chamber, which includes the pedestal shield and sidewall shield as recited in the claims, which cooperate, when the pedestal is in the raised position, to prevent line-of-sight deposition transmission from the sputter target to the side and lower walls of the deposition chamber. Importantly, in the claimed system

and method, the pedestal is movable between a lowered loading and unloading position and a raised deposition processing position and surrounded by chamber interior lower, side and upper walls. As stated in the added subject matter of independent system claims 1 and 14, and in the original second step of method claim 20, when the pedestal is in the lowered position, the claimed sidewall shield lower end is above the pedestal a distance sufficient to permit a wafer to be horizontally loaded onto the pedestal.

The Chung et al. patent cited against claims 1, 14 and 20 discloses a shielding system for a physical deposition chamber in which clamp ring 44 cooperates with lower chamber shield 48 (Figs. 3A and 3B), clamp ring 64 cooperates with lower chamber shield 68 (Figs. 5A and 5B) and pedestal shielding ring 84 cooperates with lower chamber shield 48 (Figs. 6A and 6B). However, the cooperation between these parts only takes place when the pedestal 42 or 82 is in the lowered or "release position." In the raised or "process position" described in Chung, the aforementioned parts are separated, and there is no cooperation. This is precisely opposite to applicants' system and method, where the pedestal shield and sidewall shield cooperate when the pedestal is in the raised deposition processing position.

Accordingly, Chung's disclosed shielding ring does not meet the limitations of applicants' system claims 1-19 or method claim 20, and cannot anticipate those claims. Likewise, applicants' respective system and method claims are not obvious to one of ordinary skill in this art since there is no suggestion in Chung of modifying the shielding ring to work in the opposite manner.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter W. Peterson', written over a horizontal line.

Peter W. Peterson
Reg. No. 31,867

DeLIO & PETERSON, LLC
121 Whitney Avenue
New Haven, CT 06510-1241
(203) 787-0595